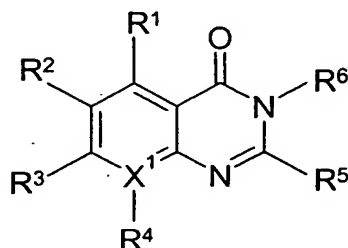


5 What is claimed is:

1. A compound having the chemical formula:



wherein:

10  $R^1$ ,  $R^2$  and  $R^3$  is each independently selected from one of: H, halogen, CN,  $CF_3$ ,  $OCF_3$ , lower alkyl, lower alkoxy, NH-acetyl, NH-lower alky, NH-alkylaryl;  $N(\text{lower alkyl})_2$ ,  $C(O)OH$ ,  $C(O)O\text{-lower alkyl}$ ,  $C(O)NH\text{-lower alkyl}$ ,  $C(O)N(\text{lower alkyl})_2$ , OH,  $OC(O)\text{-lower alkyl}$ ,  $OC(O)\text{-lower alkyalamino}$ ,  $OC(O)\text{-lower alkyl-}$   
 $N(\text{lower alkyl})_2$ , and  $OP(O)(OH)_2$ ;

15  $R^4$  is optional and may be selected from one of: H, halogen, CN,  $CF_3$ ,  $OCF_3$ , lower alkyl, lower alkoxy, NH-acetyl, NH-lower alky, NH-alkylaryl,  $N(\text{lower alkyl})_2$ ,  $C(O)OH$ ,  $C(O)O\text{-lower alkyl}$ ,  $C(O)NH\text{-lower alkyl}$ ,  $C(O)N(\text{lower alkyl})_2$ , OH,  $OC(O)\text{-lower alkyl}$ ,  $OC(O)\text{-lower alkyalamino}$ ,  $OC(O)\text{-lower alkyl-}$   
 $N(\text{lower alkyl})_2$ , and  $OP(O)(OH)_2$ ;

20  $X^1$  is selected from one of C and N,

$R^5$  is selected from one of: H lower alkyl, a furyl, thienyl, styryl, pyridyl and phenyl group optionally substituted with 1 to 3 substituents selected from one of H, halogen, CN,  $CF_3$ ,  $OCF_3$ , lower alkyl, NH-alkylaryl,  $N(\text{lower alkyl})_2$ , lower alkoxy, OH,  $OC(O)\text{-lower alkyl}$ ,  $OC(O)\text{-lower alkyalamino}$ ,  $OC(O)\text{-lower alkyl-}$   
25  $N(\text{lower alkyl})_2$ , and  $OP(O)(OH)_2$ ;

$R^6$  is selected from one of: H, lower alkyl, and a group comprising  $-(CH_2)_n-$   
 $X^2-R^7$  wherein n is 0, 1, or 2,  $X^2$  is O,  $C(O)$ ,  $CH(OH)$ , lower alkyl or a single bond,  
and

$R^7$  is an aromatic group optionally substituted with 1 to 3 substituents  
30 selected from one of: H, halogen, CN,  $CF_3$ ,  $OCF_3$ , lower alkyl, lower alkoxy, NH-

- 5 lower alkyl, NH-alkylaryl, N(lower alkyl)<sub>2</sub>, OH, OC(O)-lower alkyl, OC(O)-lower  
alkylamino, OC(O)-lower alkyl-N(lower alkyl)<sub>2</sub>, and OP(O)(OH)<sub>2</sub>;  
or a pharmaceutically acceptable salt or complex thereof.
2. A compound according to claim 1, wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> are independently  
10 selected from one of hydrogen, halogen, lower alkyl, OH and OP(O)(OH)<sub>2</sub>.
3. A compound according to claim 2, wherein said halogen is selected from one of  
fluorine and chlorine.
- 15 4. A compound according to claim 2, wherein lower alkyl is methyl.
5. A compound according to claim 2 wherein, R<sup>1</sup> is selected from one of hydrogen  
and methyl.
- 20 6. A compound according to claim 2, wherein R<sup>2</sup> is selected from one of hydrogen,  
fluorine, chlorine, hydroxy, and methyl.
7. A compound according to claim 2, wherein R<sup>3</sup> is selected from one of hydrogen  
and chlorine.
- 25 8. A compound according to claim 2, wherein R<sup>4</sup> is selected from one of hydrogen,  
hydroxy, and methyl.
9. A compound according to claim 1, wherein X<sup>1</sup> is carbon.
- 30 10. A compound according to claim 1, wherein R<sup>5</sup> is phenyl optionally substituted  
with 1 or 2 hydroxy.
11. A compound according to claim 1, wherein R<sup>6</sup> further comprises the group –  
35 (CH<sub>2</sub>)<sub>n</sub>-X<sup>2</sup>-R<sup>7</sup>;  
wherein n is 1 or 2;

5         $X^2$  is a single bond, and  
       $R^7$  is phenyl optionally substituted with 1 or 2 halogens.

12. A compound according to claim 11, wherein n is 2 and said halogens are  
      selected from one of fluorine and chlorine.

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13. A pharmaceutical composition comprising a compound according to claim 1 and  
      pharmaceutically acceptable diluent or excipient.

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14. A method of treating disease or disorder characterized by abnormal bone or  
      mineral homeostasis which comprises the administration to a subject in need of  
      treatment thereof an effective amount of a compound according to claim 1.

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15. A method according to claim 14, wherein the bone or mineral disorder is  
      selected from one of osteosarcoma, periodontal disease, fracture healing,  
      osteoarthritis, rheumatoid arthritis, Paget's disease, humoral hypercalcemia  
      malignancy, and osteoporosis.

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16. A method according to claim 14, wherein the bone or mineral disease or disorder  
      is osteoporosis.

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17. A method of increasing serum parathyroid hormone levels in mammals, which  
      comprises the administration to a subject in need of treatment thereof an  
      effective amount of a compound according to claim 1.

18. A method for preparing 2,3,5,6,7,8-substituted 3*H*-quinazolin-4-ones by reacting  
      2,4,5,6,7,8-substituted benzo[*d*][1,3]oxazin-4-ones with primary amines under  
      microwave irradiation conditions.

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19. The compound according to claim 1, wherein compound is selected from one of:  
      2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
      2-(2,5-dihydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;

- 5 2-(3-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-3-(2-phenoxy-ethyl)-3*H*-quinazolin-4-one;  
 3-[2-(4-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 10 3-[2-(3-chloro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 3-[2-(2-chloro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-3-[2-(4-methoxy-phenyl)-ethyl]-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-3-(2-*p*-tolyl-ethyl)-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-6-methyl-3-phenethyl-3*H*-quinazolin-4-one;  
 15 6-fluoro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
 6-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-3-phenethyl-5-phenethylamino-3*H*-quinazolin-4-one;  
 2-(2-hydroxy-phenyl)-5-methyl-3-phenethyl-3*H*-quinazolin-4-one;  
 7-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
 20 2-(2-hydroxy-phenyl)-8-methyl-3-phenethyl-3*H*-quinazolin-4-one;  
 6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 6-fluoro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 7-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-5-methyl-3*H*-quinazolin-4-one;  
 25 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-5-methyl-3*H*-quinazolin-4-one;  
 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methyl-3*H*-quinazolin-4-one;  
 3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methyl-3*H*-quinazolin-4-one;  
 6-chloro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 6-chloro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 30 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-6-methoxy-3*H*-quinazolin-4-one;  
 3-[2-(3-fluoro-phenyl)-ethyl]-6-hydroxy-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
 one; acetic acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester;

- 5 3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-8-methoxy-3*H*-quinazolin-4-one, isobutyric acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester;  
sodium salt of 6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
- 10 8-chloro-2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-quinazolin-4-one;  
7-chloro-3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
7-chloro-3-[2-(2-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;  
2-(2-hydroxy-phenyl)-3-(2-pyridin-3-yl-ethyl)-3*H*-quinazolin-4-one;  
6-fluoro-2-(2-hydroxy-phenyl)-3-(2-pyridin-3-yl-ethyl)-3*H*-quinazolin-4-one;
- 15 2-(2-hydroxy-phenyl)-3-phenethyl-3*H*-pyrido[2,3-*d*]pyrimidin-4-one;  
3-[2-(3-fluoro-phenyl)-ethyl]-2-(2-hydroxy-phenyl)-3*H*-pyrido[2,3-*d*]pyrimidin-4-one;  
3-(1,1-dimethyl-3-phenyl-propyl)-6-fluoro-2-(2-hydroxy-phenyl)-3*H*-quinazolin-4-one;
- 20 methylamino-acetic acid 2-{6-fluoro-3-[2-(3-fluoro-phenyl)-ethyl]-4-oxo-3,4-dihydro-quinazolin-2-yl}-phenyl ester hydrochloride;  
6-fluoro-2-(2-hydroxy-phenyl)-3-(2-phenyl-propyl)-3*H*-quinazolin-4-one;  
6-fluoro-2-(2-hydroxy-phenyl)-3-(*R*-2-phenyl-propyl)-3*H*-quinazolin-4-one;  
6-fluoro-2-(2-hydroxy-phenyl)-3-(*S*-2-phenyl-propyl)-3*H*-quinazolin-4-one; and
- 25 6-fluoro-2-(2-hydroxy-phenyl)-3-(3-phenyl-propyl)-3*H*-quinazolin-4-one.

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